



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,823	01/25/2002	Dale R. Adams	60472-302001	4213
25696	7590	04/25/2005	EXAMINER	
OPPENHEIMER WOLFF & DONNELLY P. O. BOX 10356 PALO ALTO, CA 94303			YENKE, BRIAN P	
			ART UNIT	PAPER NUMBER
			2614	

DATE MAILED: 04/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/057,823	Applicant(s) ADAMS, DALE R.	
	Examiner BRIAN P. YENKE	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment (06 Dec 04).
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-24 (claim 2 being cancelled) is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1 and 3-24 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. As per telecon with applicant's representative, the examiner in further view of the claims is now providing a restriction, since the application contains multiple distinct inventions.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1, 3-8 (subcombinations) are drawn to deinterlacing of a video source, classified in class 348, subclass 441, 448, 452 and 458 . Claims 22-24 (subcombinations) are drawn to edge detection classified in class 382, subclass 266.
- II. Claims 9-22, drawn to edge detection, classified in class 348, subclass 625, 630 and class 382, subclass 266.

Both inventions also include filtering which is found in class 382, subclass 260-265.

Claims 1 and 3-6, recite a method for deinterlacing a video source:

Including filtering, detecting an edge, detecting an orientation and calculating a new pixel. All the limitations being broad.

Claims 7 and 8, recite a method for deinterlacing a video source; including detecting an edge,, detecting an orientation, calculating a new pixel (all being broad) and a filtering limitation (being specific).

Claim 9, recites a system for the detection of an image edge; including filtering (specific), and edge maximum, minimum calculation, and edge direction calculation and a post-detection filter.

Art Unit: 2614

Claims 22-23, recite an edge-based pixel calculation; including a 2D pixel storage array, a directional pixel calculation module and a calculated pixel selection module (all being broad).

Claim 24 recite an image feature edge detector, including a horizontal filter means, an edge direction calculation means and a post detection filter (all being broad).

Inventions of Group I and Group II are related as combination and subcombination disclosed as usable together in a single combination. Inventions in this relationship are distinct if it can be shown that the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and that the subcombination has utility by itself or in other combinations.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.43).

Thus as per telecon with applicant's representative, the groups are broken down into subcombinations (being claims 1 and 3-6, 7, 8 and 22-24)/combination (the combination being claims 9-22), where the applicant can choose one of the following claims to be examined in the instant application:

Claims 1 and 3-6;

Claims 7 and 8;

Claims 9-22;

Art Unit: 2614

Claims 22-23;

Claim 24

3. The examiner also notified the applicant's representative that claims 7 and 8 were found allowable, assuming no art is newly discovered upon the search update. Claims 9-22 were also found allowable based upon an updated search as well, however claim 9, includes the language "too many" in reciting a value maximum, minimum, close (in addition to some dependent claims), the examiner requested the applicant to avoid a 112 rejection (if this set of claims was elected) based upon indefiniteness, by including language such as a "threshold", limit or deleting "too many" from the claim.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (571)272-7359. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (571)272-7352.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is

Art Unit: 2614

(703)305-HELP.

General information about patents, trademarks, products and services offered by the United States Patent and Trademark Office (USPTO), and other related information is available by contacting the USPTO's General Information Services Division at:

800-PTO-9199 or 703-308-HELP

(FAX) 703-305-7786

(TDD) 703-305-7785

An automated message system is available 7 days a week, 24 hours a day providing informational responses to frequently asked questions and the ability to order certain documents. Customer service representatives are available to answer questions, send materials or connect customers with other offices of the USPTO from 8:30 a.m. - 8:00p.m. EST/EDT, Monday-Friday excluding federal holidays.

For other technical patent information needs, the Patent Assistance Center can be reached through customer service representatives at the above numbers, Monday through Friday (except federal holidays) from 8:30 a.m. to 5:00 p.m. EST/EDT.

The Patent Electronic Business Center (EBC) allows USPTO customers to retrieve data, check the status of pending actions, and submit information and applications. The tools currently available in the Patent EBC are Patent Application Information Retrieval (PAIR) and the Electronic Filing System (EFS).

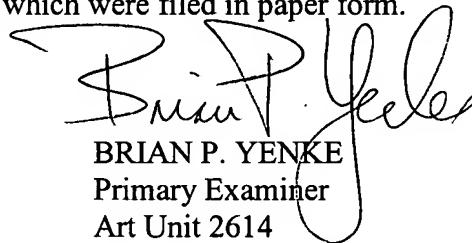
PAIR (<http://pair.uspto.gov>) provides customers direct secure access to their own patent application status information, as well as to general patent information publicly available. EFS allows customers to electronically file patent application documents

Art Unit: 2614

securely via the Internet. EFS is a system for submitting new utility patent applications and pre-grant publication submissions in electronic publication-ready form. EFS includes software to help customers prepare submissions in extensible Markup Language (XML) format and to assemble the various parts of the application as an electronic submission package. EFS also allows the submission of Computer Readable Format (CRF) sequence listings for pending biotechnology patent applications, which were filed in paper form.



B.P.Y
21 April 2005



BRIAN P. YENKE
Primary Examiner
Art Unit 2614